

Appl. No. 10/524,398
 Amdt. Dated May 19, 2008
 Reply to Office Action of November 19, 2007

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A liquid ejection apparatus comprising:

~~having a line head having arranged by juxtaposing a plurality of liquid ejection parts of~~ unit heads ~~so as to connect the unit head to the adjacent unit head,~~ each unit head having a plurality of ink ~~at least part of the liquid ejection part for~~ ejecting nozzles ~~ink droplets from a nozzle,~~ the liquid ejection apparatus comprising:

principal control means for controlling the ink ejecting elements of each unit head based upon a nominal operating condition for the unit head ~~each of the liquid ejection part to eject liquid droplets from the nozzle; and~~

auxiliary control means for controlling the ink ejecting elements of each of a plurality of unit head elements based upon a determined operating condition for the unit head which differs from the nominal operating condition for the corresponding unit head ~~liquid droplets to be ejected in at least one direction different from the ejection direction controlled by the principal control means in the arranging direction of the liquid ejection parts; and~~

~~auxiliary control execution determining means for individually setting whether the auxiliary control means is executed for each of the unit head.~~

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Claims 2.-11. (Canceled) Please cancel claims 2-11.

12. (Currently Amended) The apparatus according to Claim 1, wherein the liquid ejection apparatus part comprises:

a liquid chamber for accommodating liquid to be ejected associated with each ink ejecting element;

bubble generating means arranged within the liquid chamber for generating bubbles in liquid contained in the liquid chamber by supplying energy; and

a nozzle-forming member having nozzles formed therein ~~thereon~~ for ejecting liquid contained in a corresponding ~~the~~ liquid chamber ~~in-operatively associated with generation of bubbles~~, and

wherein the auxiliary control means controls liquid droplets to be ejected in a direction different from that of liquid droplets ejected by the principal control means by supplying energy to the bubble generating means in a different way from that of the principal control means based upon a nominal operating condition for the unit head.

13. (Currently Amended) The apparatus according to Claim 1, wherein the liquid ejection apparatus part comprises:

a liquid chamber for accommodating liquid to be ejected associated with each ink ejecting element;

a heating element arranged within the liquid chamber for generating

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bubbles in the liquid contained in the liquid chamber by supplying energy; and
a nozzle-forming member having nozzles formed therein thereon for ejecting
liquid contained in a corresponding the liquid chamber ~~in-operatively-associated~~
~~with-generation-of-bubbles~~, and

wherein a plurality of the heating elements are juxtaposed in each ~~the one~~
liquid chamber in the an arranging direction of the liquid ejection parts, ~~and are~~
~~connected-together-in-series~~, and

further comprising wherein the auxiliary control means comprises a circuit
having a switching
element connected between the heating elements ~~connected-together-in-series~~, and
~~controls the ejection direction of liquid droplets to be ejected in a direction different~~
~~from that by the principal control means by passing electric current between the~~
~~heating elements through the circuit or by discharging electric current from~~
~~between the heating elements through the circuit so as to control electric current~~
~~for supplying to each heating element.~~

Claims 14.-15. (Canceled) Please cancel claims 14-15.

16. (Currently Amended) A liquid ejecting method for controlling the ejection
of ink from a ~~using~~ a line head arranged by juxtaposing a plurality of liquid
ejection parts of unit heads ~~so as to connect the unit head to the adjacent unit~~
~~head, each unit head having at least part of the liquid ejection part for ejecting ink~~

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~~droplets from a nozzle~~, the liquid ejecting method comprising the steps of:

~~executing~~ providing principal control means for ejecting liquid droplets from the nozzle of the liquid ejection part for each of a plurality of unit heads based upon a nominal operating condition for the unit head;

enabling auxiliary control means to be executed for controlling the ink ejecting elements of each of a plurality of unit head elements based upon a determined operating condition for the unit head which differs from the nominal operating condition for the corresponding unit head

~~ejecting liquid droplets in at least one direction different from that controlled by the principal control means in the arranging direction of the liquid ejection parts;~~
and

individually setting whether the auxiliary control means is executed for each of the unit head.

Claims 17-19 (Canceled)